A Framework for Sustainable Education in Nigeria: Strategies of Re-integrating Vocational Skills into Educational Curriculum

Aderonmu Peter Adewuyi

By

Department of Architecture, Covenant University, P.M.B 1023, Ota, Ogun State.

E-mail: wuyipeters@yahoo.com

Abstract

The Curriculum of education in Nigeria and some other developing countries has been based partly on the theory and in another view as virtually on academic certification. Prior to this basis, the national policy on education originally had its cardinal objective to promote the acquisition of appropriate creative skills, abilities and competence both mental and physical as equipment for the individual to live in and contribute to the development of the society. Up till now, there seemed to be no established institutional Apparatus nor did it seem likely that a sustainable curriculum would appear in the nearest future. What is emergent now, is a dynamic pedagogy that can serve the society with required diets needed for early discoveries of potentials and acquisition of 'employable' skills from school. In this way the 'unemployment and 'unemployable' issues will be resolved within the training periods and productive professional contributions to the society can be procured after school. This study devised that a 'dynamic mechanism' can be strategize within the existing curriculum for schools by pragmatic approach. The existing syllabus or curriculum can be redesigned, monitored, controlled and implemented with vocational genres, capable of engendering sustainable development across all fields of human endeavour, including all civic engagements in the society. This paper, therefore, examined and drew heavily on the strength, weaknesses, opportunities and threats of the existing fundamentals of the historic-Bauhaus curriculum which form the modus operandi of most architecture schools all over the world, including Nigeria context. The results were 'the therapeutic approach of redesigning curriculum in content and form of vocationalism, yielded strengths from the synergy of the monitored and controlled programme and feasible implementation culture by concerned stakeholders. It also generated a reasonable style of independent life in knowledge and skill acquisition required for best professional practice and right attitude to community project participation.

Keywords*:* Architecture, Vocationalism, Curriculum, Pedagogy

1.0 Introduction

Education is the greatest force that can be used to bring about change. It is also the greatest investment that a nation can make for the quick development of its economic, political, sociological and human resources (EFRND, 2010). It was in this regard that a National Policy on

Education was formulated for the country. The policy seeks the inculcation of national consciousness and national unity; the inculcation of the right type of values and attitudes for the survival of the individual and the Nigerian society; the training of the mind in understanding of the world around; and the acquisition of appropriate skills, abilities and competence both mental and physical as equipment for the individual to live in and contribute to the development of his society (FRN, 2004).

Educational growth and social development in developing countries are hindered by a lack of adequate, efficient delivery of quality sustainable education. This could be as a result of certain challenges that curriculum issues faced in schools. The curriculum issues have suffered so much neglect at the same time inextricably linked to matters on educational concerns and reforms around the world. In a sense, experiences of educational reform strategies almost all over the world have shown that curriculum is at the same time a policy and a technical issue, a process and a product, involving a wide range of institutions and actors. Therefore, the term "re-integration," in this context, will be operated as a form of innovative and process-product strategic insertion of vocational ingredients into the existing structure.

Mintrom (2000) uses the term "innovative" to refer to "ideas or practices that are new within the context of the school." More clearly stated, an innovation is "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 1995). Another definition of innovation involves newly introduced method, custom, device etc; "change in the way of doing things"; "renew, alter" (Webster's New World Dictionary, 2001) or doing things differently or doing different things" (Dunkin, 2000; 2002). In the context of the procedure offers by this paper, it seeks inquiries into the tenets of instructions as found in the process-product curriculum review of architectural pedagogy. It offers a prime example of a collaborative, multi-sensory, learner centered, experiential problem-based environment.

This paper, therefore, drew on the fundamental vocational contents of the existing curriculum, specifically, the history of vocational education juxtaposed with Bauhaus curriculum. It also prioritized that a 'dynamic mechanism' can be strategized within the existing curriculum for all schools.

2. Vocational Education Curriculum in Nigeria

Enabling people to free themselves from poverty and to build sustainable livelihoods is both a key role for education and a prerequisite for sustainable development (SD), which brings together three pillars of development: society, environment and economy UNESCO, (2008). However, the current curriculum operated for education practices have not enabled people to live sustainably thus far; indeed, many would argue that they have actively contributed to unsustainable living, especially in the so-called 'developed' countries (DCs) of the world. In a dynamic economy, social change is a necessity: in order to change society, we need to change the way we learn, educate, and apply the knowledge to the development of the society. One of the ways is vocational way of training; allowing learners to understand their potentials through skill acquisition and knowledge in relation to what they can give back to the society that trained them.

The concept of vocational education (Oni, 2006), and its inclusion in the training as found in the curriculum; has been an integral part of national development strategies in many societies because of the impact on human resource development, productivity, and economic growth (Chaedar, 2002). Despite its outstanding impact on the economy, the stakeholders in Nigeria does not seem to give vocational education the place it deserves; and that appears one of the reasons for the rising unemployment, unemployable and poverty issues in the society (Oni, 2006). In architectural practice, there is a common notion recently that the graduates are unemployable due to some deficiency in their training process (Okha-Avae, 2008). This was as a result of lacking in sustainable diets in the existing curriculum; hence, the wide gap between the types of education offered in school, implementation policy, its review and development, and the performance in the practicing field. In order to establish a curriculum as an institutional apparatus and improve the skills and welfare of the graduates, the delegates to the National Political Reform Conference, in particular the National university commission (NUC), Architects registration council of Nigeria (ARCON), Nigerian institute of architects (NIA) and Nigeria Labor Congress (NLC), needs to push for a well redesigned, monitored, controlled and implementable curriculum programme. Also, there should be a conscious effort to agitate for increase in funding for vocational aspect of the training as part of the general educational policy and planning in the on-going national economic transformation program. This is expected to

translate into higher productivity, less unemployment, unemployable, poverty and crime; as clues for economic growth and prosperity in Nigeria. It has been noted that vocational programme is designed to offer training to improve individuals' general proficiency, especially in relation to their present or future occupations.

While vocational education curriculum has continued to flourish well in many societies, Nigeria is yet to establish an institutional ideology capable of engendering sustainable development in her curriculum. Although vocational curriculum seem deficient in 'citizenship or leadership training' (Friedman 1982;1997), they could provide students with the skills to become productive entrepreneurs and creatively innovative ideas that would enlarge the nations economic pie, and increase personal independence. Thus the neglect of vocational education is socially injurious as is rubbing the nation of the contribution the graduates would have made on national development. More importantly, the society needs competent graduates in the areas of fabrication, industrial design and manufacturing. Also, needed are well trained artisans in building industry who can work out details in metal works, sculptures, wood works, ceramics, textile designs, auto mechanics and truck drivers, carpenters, plumbers, electricians and computers, database and Web/Network technicians, bookkeepers and clerks, foremen, technicians and vocational expertise who can make the trainees to function well. The half-baked roadside metal, wood, mechanics workers, project architects, technicians and engineers in the building industries. These set of people in the society causes more damages to building, vehicles, and innocent people when they are contracted to service. Also, because of poor vocational training, they have made many people to incur heavy debts and others to their early grave. The current preoccupation with university education in Nigeria reduces economic opportunities of those who are more oriented toward work than academe (NPE, 2004). Not everyone needs a university education. As mentioned earlier, graduates of vocational and technical institutions are highly skilled entrepreneurs. Many of the so-called "expatriate engineers" who are being paid huge sum of money in dollars to build the houses, roads and bridges in Nigeria are graduates of vocational colleges; yet, Nigeria is not taking this sector seriously.

2. Practicum Pedagogy in Architecture

From the inception, architectural design Studio in the nineteenth century, aside from tremendous changes in the handling of theory and architectural practice, the traditional studio-based pedagogy has not changed substantially from the historical models of the Ecole des Beaux-Arts and the Bauhaus Schools (Olotuah, 2002). The Beaux-Arts school originated in the nineteenth century when the two modes of teaching, Mimesis and Analysis, received emphasis in architectural education. Mimesis, or imitation, was originally exemplified by the medieval "bottegha".

Whereas, the **"**Staatliche Bauhaus Weimar" was founded in 1919 by Walter Gropius with the aim of uniting arts, crafts and architecture training within a single institution and reforming living and housing conditions**.** The Bauhaus was the most modern art school of its day. It was to revolutionize Art education and production. Fundamental to Bauhaus teaching was Sullivan's principle that form follows function and William Morris' belief that utility and aesthetics could be integrated. Rather than returning to old craft-guild concepts, however, the school looked forward to, embracing modern technology and materials. It explored new approaches to printing, metalwork, weaving, pottery, and stage craft, as well as architecture. Therefore the research focus of this study shall draw heavily on the vocational style of one of the two premier schools- the Bauhaus school alongside with the parades of its own aims, principles, philosophy and vocabulary.

3. Bauhaus Philosophy and Curriculum Strategies of Vocationalism

The philosophy is expressed in creating an exemplary modern building in which all the arts would be synthesized into a whole unit. Being vocational in the ordinary sense is to be fully engaged in providing skills and education that prepare one for a job. For efficacy of pure professionalism, Bauhaus school did not minimize the educational aspect of vocationalism, but rather engaged it as plus in its curriculum. The curriculum of the school is in three categories of a single holistic unit, they are: The preliminary course, instructions in crafts and forms problems, and instructions in architecture.

3.1 The Preliminary Course

The major function of this course is to help the individuals to discover own self (potentials) and expressionism at the areas of strengths by acting exactly at the strong points of their gifts, talents and skills development. This worked out by breaking down conventional pattern of thought, and creative departure from conventional regiments to pragmatic creative-problem solving. This includes theoretical and practical training held altogether to release creative powers in order to grasp the physical nature of materials and law of basic design - pragmatism. In this way, right from the very beginning of their carrier, students' potentials are identified by teachers i.e. tutors, instructors, and mentors, which give them the opportunity to align them with suitable materials in accordance with what they can work and loved doing well with. This is requisites to all manner of workmanship in order to excel in their different areas of discoveries. Also, noteworthy scriptural evidence was to discover one's calling and purpose at the preliminary state of one's carrier in order to maximize the purpose of destiny within the specificity of time and space of vocational development. The case study of Bezaleel and Aholiab:'See, I have called by name Bezaleel the son of Uri, the son of Hur, of the tribe of Judah: And I have filled him with the spirit of God, in wisdom and in understanding and in knowledge, and in all manner of workmanship, to devise cunning works, to work in gold, and in silver, and in brass, and in cutting of stones, to set them, and in carving of timber, to work in all manner of workmanship, and I, behold, *I have given* with him Aholiab(runners, partners associates, vision sharers e.t.c (Hab2:1-3), the son of Ahisamac, of the tribe of Dan: and in the hearts of all that are wise hearted I have put wisdom, that they may make all that I have commanded thee;' (exodus 31:1-5).

The Latin word 'vocare' which means vocation is simply "to call or name". This clarifies the fact that vocationalism of any sort is a calling or naming i.e. see, I have called by name Bezaleel the son of Uri…, factors that can be retrieved from this for further understanding are these: that Vocationalism involves (a) calling by name (b) infilling of potentials to carry out a specific assignment (c) specificity of assignment and (d) Versatility and creative handling of materials and forms. Vocation according to Encarta dictionary is somebody's work, job or profession, especially a type of work demanding special commitment. It is an urge to follow specific career, a strong feeling of being destined or called to undertake a specific type of work especially a

sense of being chosen by God for religious work or a religious life. In this sense, it follows that for any course to qualify as a vocation (architecture and other creative arts inclusive), it must be a career, a feeling of divine destination, specificity of work and a sense of being chosen for an altruistic (religious) endeavour. In other words, there must be a tenor of instruction guiding such disciplines.

3.2 Instruction in Crafts and Form Problems

The aim of craft training is to add to a many sided education rather than to develop the specialized craftsman. In essence craft serves to train hands and to ensure technical proficiency in all manner of vocationalism.

3.3 Instruction in Architecture

The last and most important stage of Bauhaus school curriculum of education is this course in architecture with practical experience in the research department as well as on actual building under construction for which the Bauhaus has been commission. This is a training aspect for professionalism popularly known as *'Architect's instruction'* written in codes and ethics of architectural practice. Instructions of this manner are not only verbal, but articulately written and well documented for appropriate action.

4. Dividends of Bauhaus School

There are lots of dividends besides the synthesis of all arts; these are enshrined in the apt for creativity of Bauhaus school. When solving training problems of an industrial age, Walter Gropius was able to formulate and execute a format of training for architects that suits the ever increasing definitions of architect, knowing that not every architect can be trained as a designer. It also made way for self employment in diverse fields related to architecture e.g furniture design and construction, interior designing, modeling, fashion and designing, graphic designing, ceramic designing, Textile designing, sculptural designing e.t.c.

Bauhaus pedagogy also served as an eye opener that environmental designers may know how a wide spectrum is and that building design is just an integral part of that spectrum and that the

appropriate function of a professional school is to provide or participate in the provision of educational preparation for all the specializations related to the shaping of the world.

Therefore, architectural design studio teachings have been patterned after the methods stated above which has come under considerable criticism. Changes in studio culture during this period have been very limited, and have gone largely unnoticed by the professional community. Therefore, revisiting the traditional bases of partly ecoles des Beaux-Art for its Mimesis and Analysis that received emphasis in architectural education. Mimesis or imitation being originally exemplified by the medieval "bottegha" which the student was a worker for a "master", acquiring both technique and philosophy and mostly Bauhaus practicum pedagogy that provides one instance of higher education's direct engagement in meeting the demands of the commercial, entrepreneurial and educational world.

However, the higher education context in which architectural design studio learning takes place also presents more educationally-referenced demands and affiliations; as a subject area it can therefore be seen to exist at a nexus between the 'commercial' world and the 'educational' one, with strong allegiances to both. These features offer fertile ground for philosophical discourse and empirical inquiry, with the potential that illuminates the ways in which negotiations between diverse architectural design studio cultural values exert impact upon teaching and learning in architectural design studios. Two aspects of the situation make this consideration likely to be of wider interest—the growing and emergent demands on entrepreneurial, practical, and vocational intelligence of higher education in Nigeria, and the little or no accounts of the theories and practices of processes that suggests 'how' and 'what' design studios do in their works, asides generic ways of teaching, in preparing students for professional destinations. These areas have suffered neglect.

5. Ethical Values of Bauhaus

The Bauhaus cultural characteristics possess the following: since the aims of Bauhaus were to bring together all creative effort into one whole by synthesizing all the discipline of practical art, sculpture, painting, handicrafts, and the crafts as inseparable components of a new architecture. The ultimate, if distant, aim of the Bauhaus is the unified work of art- the great architectural structure in which there is no distinction between monumental and decorative art. Also expressed in the Bauhaus aim to educate architects, painters, sculptors and craft men at all levels, according

to their capabilities, to become competent craftsmen or independent creative artists and to form a working community of leading and future artist- craftsmen. Bauhaus asserted that 'Those men of kindred spirit will know how to design buildings harmoniously in their entirety as in structure, finishing, ornamentation, and furnishing (interior decoration)'. The symbolic values that can be drawn from Bauhaus synthetic characteristics are: unification of all sectors of citizenry into governance for effective group representation; capacity building for *competence* and *independence* for a participatory working community and; Total man concept of building Kindred spirit, corporate skills with flair for harmony, and souls for finishing per lasting ornamentation.

Also noteworthy among the ethical values is the Jury Traditional method of performance evaluation. This is absolutely compulsory in the architectural design studio assessment, done mainly through the traditional jury, the one-to-one conventional tutorial, the long hours Culture. This ethics gives room for evaluation of work done, structure individual accountability in the studio by assessing the performance of each individual member and by giving the results back to the individual and the group to compare to established criteria. The feedback makes students recognize and celebrate efforts to learn and contributions to group mates' learning; provides immediate remediation and any needed assistance or encouragement; and reassigns responsibilities to avoid redundant efforts by students." (Johnson and Johnson, 1999, p. 29).

Also in this culture, the Individual accountability results in group members knowing they cannot hitchhike on the work of others, loaf, or get a free ride. The ways of structuring individual accountability include keeping group size small in modules (as presently in industrial design studio module structure of covenant university, school of architecture, Ota), giving an individual preliminary assignments to each student, staging random individual oral-seminar examinations, observing and recording the frequency with which each student contributes to the group's work, having students teach what they know to someone else, and having students use what they have learned on different problems." (Johnson, Johnson and Holubec, 1998, p. 2:18).

6. Relevant Theories of Architectural Education to Vocationalism

The pedagogical learning processes in most schools of architecture in Nigeria are underpinned by relevant psychosocial theories that characterize the architectural design studio. These can be examined in light of a number of different learning theories, learning styles, and their associated teaching approaches (instructional strategies). While over fifty different learning theories have

been catalogued at Greg Kearsley's Theory into Practice database, the most well-known and applicable to theories of learning in design education can be divided into three areas: behaviorism, cognitivism, and constructivism. These are matrix of theory relevant and associated with instructional pattern of architectural design education and other creative education which in turn elicits vocational and professional genre as benefits; talents discovery, acquisition of entrepreneurial skills, self employment, innovation, creativity, and ability to navigate through design solutions pragmatically (flexibly) with charades of Hidden curriculum resources, i.e material and culture. Most relevantly associated theory to vocationalism has been constructivism theory which is discussed as following:

6.1 Constructivism

Constructivism, a learning theory that emerged in the early 1990's, rejects the objectivist view of reality and the idea that simply "communicating content to students will result in learning" (Jonassen, 1994; 1995), the "shovelware" approach reflected in some distance education courses. Constructivism would reject a linear, teacher-dominated instructional plan that defines learning objectives in advance in culminates in an objective assessment of observable behavior. Rather, it takes the view that each learner constructs his or her own subjective reality (i.e., creates meaning) through active engagement with the environment, the content, the teacher, and other learners. In Vygotsky's *social constructivism*, a community of learners, through their interactions and negotiations, may develop a largely-shared view of reality while recognizing the existence of a diversity of perspectives. Constructivism is focused on individual learning (meaning-making) rather than upon teaching; the instructor's role changes from being a conveyor of knowledge to one who facilitates (but does not completely control) an educational "transaction" promoting the development of the learner's thinking skills. Evaluation of learning is continuous, and is carried out by both the teacher and learner; learning how to evaluate one's own cognitive development (the highest of Bloom's "pyramid" of educational objectives) is an integral part of the learning process (Garrison, 1993; Vrasidas, 2000).

Constructivist teaching strategies carry with them labels such as "collaborative" or "cooperative" learning, "learning communities," "problem-based," "discovery," and "hands-on" learning, all of which can be used to describe the design studio. The type of learning that has characterized the studio from its inception is now beginning to become part of the educational mainstream. While

constructive principles characterize the wide-ranging graduate seminar in humanities, it can also be found in science and engineering education, where it can be found in the laboratory, computer simulations, and group work, where students are encouraged to build their own concepts (Wankat & Oreovicz, 285-288). This theory is the main fulcrum of vocationalism and a great essence of practicum pedagogy.

6.2 Applicable Links between Constructivism and Bauhaus Vocational Curriculum

Drawing applicable lessons from traditional background of schools of architecture, the aims of Bauhaus are the following: First, to bring together all creative effort into one whole by synthesizing all the discipline of practical art, sculpture, painting, handicrafts, and the crafts as inseparable components of a new architecture. Also, the second, but ultimate, if distant, aim of the Bauhaus is the unified work of art- the great architectural structure in which there is no distinction between monumental and decorative art. The education of architects, painters, sculptors and craft men at all levels, according to their capabilities, in order to become competent craftsmen or independent creative artists and to form a working community of leading and future artist- craftsmen. Notably in Bauhaus was strong passion for 'those men of kindred spirit', who will know how to design buildings harmoniously in their entirety as in structure, finishing, ornamentation, and furnishing (interior decoration).

By re-examining the above aims, one can readily infer from the effort made by Bauhaus tradition to incorporate all crafts into the nucleus of architecture. Vocationalism as professionalism encourages the conscious use of one's hands, brains (cognition), sense organs like eyes, ears, tongues e.t.c, to create a masterpiece, rendition to beautify the environment, services that feed, cloth, and shelter the people or any other form of services capable of adding values to the society. In turn, vocationalism of this sort, must be capable of earning the service provider a rich and comfortable living as a job creator, not job seeker, and always independently disposed to meet user's needs. If the knowledge-skills of this sort are appropriately incorporated into the school curriculum pragmatically at all levels, then, it will be able to serve the entire economy in a way that a higher level of productivity will emerge in our national economy.

Architects and allied professionals could venture as designers, consultants, constructors, painters, interior decorators and sculptors are craftsmen in the true sense of word; hence a thorough

training in the crafts, acquired in the workshops, and during experimental and practical sites, are requisites of all students as the indispensable criterion for all forms of creativity at all levels of production, i.e. during consultancy works, supervision, product packaging, detailing, fabrication of special works, model making, creativity workshops, vocational seminars and capacity building conferences.

7. The Nexus between Architectural Design Studio and Workshop Practice

Architectural design studio as the basis of workshop experience and research finding as a medium of enquiry, still needed to be incorporated together into a whole coherent unit, for their co-existence is symbiotic in nature. In this section, necessity demanded structuring formal and informal education into a coherent system. Architectural Studios were situated in formal architectural education, and vocational workshops rendered in informal education are examined in this section.

By evaluating the history of architectural education through its turning points, we can designate three clear periods of its modus operandi. At first, there was no existence of architecture schools. Originally, architectural education was carried out in the guilds and on the construction sites. The second turning point was when architectural schools came into existence. However, these schools were far different from the contemporary of which time the theoretical education was carried out in schools, but the practical education was carried out outside the school, in architects' ateliers. In Webster's Dictionary (Anonymous, 1993), atelier is expressed as "a studio in which students of art and architecture receive instruction; an artist's studio(which could be described today as architectural firms' studio today) or workshop in which several assistants or apprentices contribute toward the execution of a work bearing a master's signature".

The third turning point was when the practical and the theoretical architectural education became integrated with each other in architectural schools, and the studio was instituted within architectural education. If we need to make a general evaluation, we can point out that education principles changed during history, but it is possible to outline common points among the periods. Even in construction sites and guilds schools, studios are the only *unchanging* common point where the *master-apprentice relationship* has been the basic education method. Another common point is that informal education always exists as an alternative system to educate an architect.

But this differs very distinctly from what we perceive as today's informal education. At that time it was also thought to be in a master-apprentice method and the aim of that type of studies was to establish a nexus between the theory and practice of architecture. In the contemporary, this connection between a master and apprentice spoke volumes about the inherent potentials of vocationalism even in the developed people of some parts of the world and their economies.

8.0 Trends of Vocational Development around the World

Most renown in the education of vocationalism in the past, was in the form of apprenticeships, in which young people learned and were patterned after the master the skills and philosophy necessary for particular trades. Then, it was associated with the lower social classes as compared to the classical education that was received by gentlemen. Following the industrialization of the nineteenth century, however, vocational education began to be introduced into the school educational system. Vocational education has diversified over the twentieth century and now exists in industries as wide-ranging as retail, tourism, information technology, and cosmetics, as well as in the traditional crafts and cottage industries. It thus forms an integral part of the educational system as a whole, providing training for a large proportion of members of modern society, complementing and supporting the more academic, scholarly educational programs offered in traditional liberal arts colleges and research universities. In this sense, the idea of vocational education can be traced to apprenticeships. Blacksmiths, carpenters, merchants, and other trades have existed almost since the advent of civilization, and there have always been apprenticeship-style relationships where specific techniques and trades been passed down to members of the younger generation (EE, 2002).

More so, the industrialized countries of the West were the first to notice the benefits of having a specialized skilled work force and diverted funds to institutions that taught such skills. For most of the twentieth century, vocational education focused on specific trades such as an automobile mechanic or welder, and was therefore associated with the activities of lower social classes. As a consequence, it attracted a level of stigma, and is often looked upon as being of inferior quality to standard post-secondary education. However, as the labor market became more specialized and economies demanded higher levels of skill, governments and businesses increasingly

invested in vocational education through publicly funded training organizations and subsidized apprenticeship or traineeship initiatives. Towards the end of the twentieth century a new trend helped further the appreciation of vocational education. Up until that time, most vocational education had taken place at vocational or technology schools. However, community colleges soon started to offer vocational education courses granting certificates and associate degrees in specialized fields, usually at a lower cost and with comparable, if not better, curricula (Brodhead, 1991).

9.0 Fostering Vocationalism in the Education Sector

Vocationalism in educational growth and capacity development in developing countries are hindered by a lack of adequate, efficient supplies of quality sustainable vocational education. The education sector in many developing countries is dominated by federal and state-owned monopolies that are often not operated along entrepreneurial lines; they are commonly characterized by relatively low levels of efficiency and frequently undermined by unemployment and other vices like bribery and corruption. The result is underperformance, which translates into high costs in terms of both overall cost levels and detailed cost structures. The high costs often lead to the adoption of untargeted, damaging, and distorting subsidies. This problem results in considerable economic waste and fiscal burdens at the macroeconomic level in many developing countries, and it also inhibits the provision of relevant vocational education to other sectors that require supplies of quality modern education at the microeconomic level.

The ability to create a sustainably conducive environment that will attract the investments necessary to provide adequate, efficient supplies of quality creative education is constrained by problems that can be characterized as follows: (a) Inefficient education-sector institutions, (b)Inappropriate education-sector policies, (c) Vocationally-imbalance educational curriculum, (d) Intermittent application of the rule of law, (e) Immature markets for education and entrepreneurial services, (f) Weak local creative capital markets (g) Poor performance by business management in education Institutions, (h) Lack of adoption of best practices and standards by education institutions and the public sector, (i) Lack of consumer knowledge about

legal and commercial requirements for sustainable vocation-educational services, and Lack of roles for civil society in formulating public policies for practicum educational services.

Good educational governance, by addressing inadequacies in the administration of the educational sector by public and private sector institutions, can resolve these constraints. Generally, governance involves how decisions are made, implemented, and enforced within a sector as well as how disputes are resolved. Good governance embodies transparency, accountability, efficiency, and the rule of law. It leads to relatively low levels of corruption; consistent, cost-effective levels of service provision; and responsiveness to changing conditions and public needs.

Educational-sector governance is the institutional scaffolding (i.e., transparent, predictable, and enforceable political, social, and economic rules) of public administration that enables transactions for educational deliverables and services to be economically sustainable. Governance (both public policy and corporate governance) is a means to achieve the economic and financially viable provision of services by the education sector.

There is a growing international acceptance of several basic principles that can promote sustainable development by all countries, anywhere in the world. These include: (i) Effective and democratic institutions that include an independent and fair judiciary; (ii) Sound monetary, fiscal, and trade policies that promote economic growth and encourage social development and environmental protection; (iii) Participatory roles for all members of civil society; and (iv) High-Sounding policies informed by science and the scientific method. A well-governed educational sector is characterized by utilities that operate under standard commercial practices. Commercialization refers to the wide range of activities necessary to bring a generation, transmission, or distribution company in line with commercial standards. These activities include, but are not limited to, forming a management team that is independent from the government; hiring or developing a staff with the appropriate skills for the job; releasing redundant staff for vocational training; improving cost recovery; setting up evaluation systems by jury tradition as operated in architecture; installing management information systems; and

keeping financial records in line with international accounting standards. With respect to the educational sector, reforms are the embodiment of improved governance. The reasons for implementing educational-sector reforms depend on the conditions of the particular country seeking the reforms. In developed countries, the main goal is to reduce end-user tariffs through increased efficiency within the sector. In contrast, in most developing countries unable to finance an educational supply infrastructure with state funds, the goal is to privatize state-controlled monopolies in order to attract sufficient private investment to upgrade and expand the inadequate infrastructure.

Experience has shown that educational-sector reform usually starts from a shared vision of the core objectives. These objectives typically include a reliable, affordable educational training services supply; commercially viable enterprises; tariffs that reflect costs; private-sector investment; maximized competition and deregulation; and an overall structure that meets international standards, best practices, and legitimate investor expectations. Some of the benefits include improved service and quality for customers; more efficient use of scarce resources; technology transfers; foreign direct investment; increased trust in government institutions; macroeconomic growth; environmental improvement; and, most importantly, better living standards for people. Educational-sector reform encompasses a number of elements, but these elements have common objectives: to increase access by users, increase the efficiency of educational services, decrease the cost of educational services, and introduce competition into the sector wherever feasible. The elements of education-sector reform are generally implemented through a sequence of steps designed to achieve full private-sector involvement and competitive markets. First state-owned utilities are commercialized and corporatized. Then enabling legislation is passed, allowing the introduction of private ownership into the sector. Next, as private education institutions become interested in investing, a host state establishes the regulatory framework to supervise a competitive and privatized sector. Then the actual transfer of utilities into private ownership occurs, which requires the unbundling of existing educational training, transfer of knowledge, exhibition and distribution of creative products, and supply activities into separate activities. Finally, once unbundling of state-owned utilities has occurred, the resulting separated entities are partially or wholly privatized. Implementation of successful educational-sector restructuring typically follows three basic stages: (1) comprehensive legal and

regulatory reforms, (2) commercialization and development of the existing dominant utilities, and (3) domestic, international private-sector investment and privatization. The linchpin for this vision is a comprehensive educational law that meets key global norms and standards. The law should define the basic structure of the sector; establish basic policies and priorities; separate the functions of policy making, ownership, and regulation; establish an independent regulator; and create a framework for private investment and ultimate privatization. Therefore, the major aspects of educational-sector reform can be consolidated as follows:

9.1 Promulgation of Legislation that Allows Unbundling and Privatization of Existing Assets:

The establishment of a re-ordered regulatory framework and the introduction of competitively healthy markets and commercial practices into the education sector are preliminary steps toward privatization of existing assets.

9.2 Promulgation of legislation that allows private investment in the industry:

Enabling legislation is required to permit transfer of existing assets and concessions into private hands. Public access to the privatization process and information about privatization helps develop community acceptance of this step in educational sector reform.

9.3 Establishment of an independent regulatory authority:

Institution building is a central aspect of educational-sector reform. Privatization of assets and competitive markets require a reordering of the regulatory framework to supervise the restructured educational sector. Critical aspects include the separation of the regulator from both the education policy arm of government and state-owned educational resource providers; the financial autonomy and independence of the regulator; the adequacy of the regulator's inspection and supervisory authority; and the ability of the regulator to address anticompetitive circumstances.

9.4 Corporatization and commercialization of existing utilities:

A considerable amount of data from many countries demonstrates that development benefits accrue when utilities are separated from other government functions and are exposed to the best commercial practices.

9.5 Privatization of existing assets: The final stage in sector reforms is the implementation of privatization. A critical issue to consider is whether the process of privatizing existing utilities is transparent and open to foreign investors, thereby enhancing both public participation and capacity building. In all these, the legal framework should ensure patenting and company registration within the expanded scope of national- international trades and customs. This should be given prominence in order to ensure healthy competition, innovation, Purpose, Respect, Collaboration and Engagement culture (AIAS, 2004; 2008).

10. The Education Governance-Finance Coordinates

The growth of the education sector that is required to meet human needs hinges on attracting investment to vocational ends. Both debt and equity are drawn to safe havens where funds are likely to develop and provide a return on investment. Legal, regulatory, and policy regimes that ensure a stable environment (i.e., transparent and predictable political, social, and economic market rules) characterize locations in which investments can flourish. Governance actions designed to mobilize investment in the vocational education sector among others includes Promoting transparency in the formulation, promulgation, and implementation of rules, regulations, and technical standards; Establishing nondiscriminatory third-party access to and interconnection with vocational education networks and grids; Establishing independent regulatory authorities separate from and not accountable to any supplier of educational services; Establishing nondiscriminatory, objective, and timely procedures for the transportation and transmission of education; Requiring parties to undertake measures designed to prevent certain anticompetitive practices from occurring in education sectors (e.g., engaging in anticompetitive cross subsidization or using information obtained from competitors that could lead to anticompetitive results); and Increasing the public's understanding of the market approach to providing energy services and its knowledge of ways in which it could effectively participate in this approach.

11.0 Creative Industry Sector: Fostering Governance in the Creative Industrial Sector

Good governance is recognized internationally as a critical centerpiece of effective, sustainable, and integrated educational management. Educators alike acknowledge the need for transparent, accountable, and participatory governance to build a consensus on priority needs today and to respond to a dynamic context in the future. Beyond immediate benefits, effective industrial-

human resource governance also offers numerous opportunities to foster the more generalized building of civil society and a culture of democratic governance in many countries. There is no universal model for Industrial-Human governance appropriate for all contexts. But for the purpose of this study adopted, however, a growing international acceptance of several basic principles that are shared by all "good creative industrial-Human resources education governance" participants anywhere in the world. The following aspects are involved: (a) Integrated, intersectoral, and multi-objective decision making about educational resources at the entrepreneurial scale, in which the relationships between education, vocation and entrepreneurial world; talent discovery, acquisition of skills and its development (b) Informed and science-based decision making, in which the public has adequate access to education resources information for an improved understanding of the water cycle (c) Broad participation and empowerment of stakeholders in creative industrial-human resources decision making, across sectors and social/cultural groups and especially including women; (d) Strong, effective, and culturally appropriate institutional, policy, and legal frameworks (including setting standards and regulations) that reinforce integrated, accountable, participatory, and sustainable management and that minimize corruption; (e) Effective coordination among sectors, between public and private participants, and across multiple geographic and institutional scales; (f) Emphasis on decision making and assignment of authority at the lowest appropriate level; and (g) Commitment to creating and strengthening the human and organizational capacity for sustainable and integrated creative education management, in both the public and private sectors.

11.1 Mobilizing Financial Resources to Manage Creative Industrial-Human industries

Mobilizing the financial resources necessary to manage creative resources in industrial-human sectors is often the first and major challenge facing managers and governments around the world. The responsibility for financing the vocation-educational resource infrastructure and other needs often rests with the local and national government, although investment from private and other external sources is also frequently required. Also, each of these sources has, and will continue to have an important and distinct role to play in ensuring a sustainable and secure a sustainable vocational future for the nations of world. Since there are diversities of Gifts and Talents in humans, facets of life, education sectors (e.g. textiles, agriculture, ceramics, sculpture, carpentry and joinery, and sanitation, industry, and environmental services), therefore, vocationalism

require a sustainable policy framework and unique combinations of funding that can be readily accessed and depended upon by individuals. In all sectors, however, it is clear that the majority of future investments must increasingly come from an appropriate balance of self-regenerating domestic public sources of capital as well as domestic and international private sources. Incidentally, the aspect of economy that seems promising and viable now that can help the private led sector have been under the auspices of small and medium enterprises (SMEs). Also, the viability of these vocationally based industries required enabling environment first, in schools and second, outside school for survival and more importantly an established legal policy framework for sustainability. Therefore, this study recommends that universities, polytechnics, colleges of education and other allied citadels of learning should revamp their curriculum by subjecting them to the flexibility and creativity genres of this neo-frame work and existing national policy on cardinal objective 'to promote the acquisition of appropriate creative skills, abilities and competence both mental and physical as equipment for the individual to live in and contribute to the development of the society'. This will ensure the art of continued relevance to the contemporary and be more useful to the future needs of our dynamic societies.

12. Instituting Policy Framework for Sustainable Education in Nigeria

The small and medium enterprises (SMEs) are universally recognized as catalysts in the socio-economic development of any country. They are veritable vehicles for the achievement of macroeconomic objective in terms of employment generation at low investment cost and the development of entrepreneurial capabilities, indigenous technology, stemming rural-urban migration, local resource utilization and poverty alleviation (Ubom, 2003). Capitalizing on the catalytic role of the SMEs in nurturing economic development, successive governments in Nigeria since the 1940s have been formulating policies favorable to the development of the subsector though not well actualized in most cases. But in order to synergize the potentials of sustainable curriculum values embedded in our educational system which serves as input source of our development, then the output can be well placed if there are good avenues to showcase their talents gifts, skills and other forms of potentials. Moreover, it is pertinent at this economic stage of life that an ideological framework should be established to synergize the economic values of education, vocation, community participation and governance together. This is also necessary so that individuals can evaluate their inputs into the societal system and maximize

values on the output levels. Another way is to allow individuals to showcase their talents in conference, exhibition and workshop presentations. This will enable stakeholders and community to give patronage to their works. In this way, industrialists, manufacturers and the elites can form a kind of 'Bauhaus Ateliers', whereby, competitions can be thrown open to participants in order to win prize for a particular creative work done. Jurors or critics can be set up among the stakeholders to evaluate such entries of works.

12.1 Instituting Philosophical Framework, Strategies and Curriculum Dynamics

The Curriculum dynamics involved a feed-back mechanism which can be put in put in place within the existing curriculum. Since lack of capacity development has resulted into capability poverty: Lack of knowledge and skills for participation in economic life, therefore this study suggested the pragmatic genres of redesigned, monitored, controlled and implemented practicum feedback mechanism, capable of engendering sustainable development across all fields of human endeavour, including all civic engagements within the society.

The framework here was not considered as out of shelf formula but as a feedback mechanism for synergy between the stakeholders i.e. the individuals' vocation, educational institutions, national, state and local government, EFA, ESD, Other NGO's, MDG's e.t.c

Table 1: Adding Value through ESD and EFA Synergy

Capability poverty: Lack of knowledge and skills for participation in economic life	EFA	ESD	ESD and EFA (Added Value)	MDGs
Values	Human rights values	Values of ESD (Including human rights)	Strengthens values' dimension	All
Skills	Vocational basic skills	Skills in critical thinking, systems thinking, intergenera-tional and futures' thinking	Basic and higher level skills which enable people to deal with change, risk and uncertainty	MDG 7
Curriculum	Literacy, numeracy Engagement of curriculum developers Focus on girls' education and on disadvantaged groups	Relevant and appropriate, local and global issues Importance of local and indigenous knowledge Links between environment and development Lifelong learning	Relevant and Appropriate literacy and numeracy curriculum Retention and dissemination of useful local and indigenous knowledge Understanding of SD Inclusion of girls and disadvantaged groups Available to all ages Improved retention and entry rates to schools	MDG 1, 2, 3, 7

General	Focus on education Departments and ministries	Multi-sectoral Involvement of range of ministries e.g. Environment Importance of social learning Influence of NGOs/ CSOs Media and public awareness campaigns	Strengthen links between ministries, governments, NGOs and private sector to build understanding and support for EFA and ESD	MDG 8
	National systems set up, governments engaged	Wide range of ESD/ DESD networks set up	Synergy between networks Systems set up to develop Synergy between EFA and ESD	MDG 8

Source: UNESCO Education for Sustainable Development Policy Dialogue No.1 (2008)

A major debate in sustainable world today points desperately to millennium development goals (MDGs), especially in poverty reduction and capability discoveries. It has developed education programmes along with strategy-based curriculum which involved teachers, and community educators to synergize the advantages of potential human values, vocational basic skills, schools' curriculum, voluntary organizations and governance systems (Deche 2005). Therefore, utilizing therapeutically, the instituted framework from the above table from the outcome of first technical meeting on Education for All (EFA) and Education for Sustainable Development (ESD) Dialogue (UNESCO, 2008) will give directions to all stakeholders. It identified some of the ways in which stakeholders are currently contributing and adding values to the developing societies, this was done in form of different types of poverty reduction and prevention programmes. In addition, it highlighted some of the potential for added value by bringing EFA and ESD together under the auspices of sustainable education. This would present a strong case to bilateral and multilateral donors and help to build alliances and mobilize resources. The table attempts to demonstrate the clear overall connection to all MDGs; however, those MDGs that are most relevant are identified in the last column and of more necessity; this table is highly simplified and researchers could benefit from further consideration and development.

CONCLUSION

This study submitted that, there are specific links between the education, curriculum, vocational and poverty alleviation which have been less explored 'in spite of (tacit) agreement between Architect-Educators and other creative education specialists, industrial leaders, politicians and sociologists about the influence that the curriculum can have on both improving the living

conditions of communities and on individual social development' (Pigozzi 2003). Therefore, Instituting Policy Framework for a self-reliant sustainable Education in Nigeria and other developing countries in the simile of strategized vocationally-based curriculum. It operates on pedagogic culture of architectural design studio, especially as demonstrated in the traditional Bauhaus school of architecture, would help skills acquisition and development to achieve a lot in potential discovery of individuals and can aid well in maximizing the windows of opportunities that comes the citizens' ways by ensuring that the round pegs are inserted into the right holes in order to imbibe in citizenry the dynamic civic culture, reasonable independent life of best educational, entrepreneurial, professional, governance practice, and right attitude to community participation for sustainable development, this was demonstrated through discoveries of appropriate creative skills, abilities and competence for both mental and physical development which can serve as equipment for the individual to live in and contribute meaningfully to the development of the society. Also, the maximum utilization of citizens' wealth of knowledge and experience across a wide range of challenging areas of potential discoveries; in higher institutions of learning, vocational institutes, public offices, companies, workplaces, and other sustainable capacity development sectors of life (Goleman, 1995; 1996) including governance and right attitude to community participation (AIAS, 2004; 2008) which are now the hot debate at the nerves center of sustainable development in the dynamic societies of the world today (DGAN, 2006). The school administrators should also ensure that qualified and competent teachers (who may not be architects) are employed to handle technical, pre-vocational and vocational courses specified in the curriculum as recommended in our National Policy on Education.

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